

ABSTRACT

The invention is directed a delivery system for implantation a self-expanding medical device in a body which includes a control handle and a catheter portion. The catheter portion includes an outer restraining member which covers the collapsed, medical device, an inner catheter member having a distal end including a region upon which the medical device is mounted, and an outer sheath which is removably attached to the control handle. The outer sheath creates a conduit for the catheter portion to prevent the inner catheter member from moving axially when the outer restraining member is retracted. The control handle has a rotatable thumbwheel to actuate a retraction mechanism attached to the proximal end of the outer restraining member which moves the restraining member in a proximal direction to deploy the medical device.